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different types of services, mobile communication systems should provide different types of channels and different schemes for keeping track of the mobile location" (see column 1, lines 34 to 37 of the Wallentin *et al.* reference). Some approaches statically map services onto a specific channel type. However, this results in a non-optimal use of system resources. The Wallentin *et al.* reference discloses a connection state for communication that is dynamically selected for a packet data connection from a plurality of connection states based on a predicted traffic parameter. In particular, "each connection state specifies a particular radio channel type and a particular mobility management scheme" (see column 2, lines 59 to 64 of the Wallentin *et al.* reference). This reference discloses a dedicated channel type and a shared channel type as different channel types and a choice of which channel type is used for connection is based on measured parameters to purportedly efficiently employ system resources. The passage in column 6, lines 33 to 63 of the Wallentin *et al.* reference discloses how a change between the dedicated channel type and the shared channel type can occur for a connection on the basis of the amount of data to be transmitted. With respect, this has little in common with the present invention as claimed.

Fraccaroli

The Fraccaroli reference discloses computerized methods and systems for providing location-sensitive services in conjunction with a wireless communication network. In particular, the Fraccaroli reference discloses a computerized method and system of matching persons through their mobile stations on the network. A method of initiating contact between persons utilizing a wireless communications network on the basis of their physical location and a similarity of information which they have stored in the network is provided. Contact is initiated between people who don't personally know each other but who have both indicated an interest in meeting, or at least being put in contact with other people with similar interests. In another possible application, contact is initiated between people who might know each other but who don't know that they are both present at the same time in a certain area and who have indicated a willingness to be put in contact with each other when they are in a certain area at the same time. This has nothing to do with the Wallentin *et al.* reference.

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Claim 1

To begin there are three requirements for establishing a *prima facie* case of obviousness: 1) all features must be present; 2) there must be an expectation of a reasonable chance of success; and 3) there must be some suggestion or motivation in the prior art to combine the references.

Claim 1 is directed to an apparatus for controlling data unit communications between a plurality of mobile stations, each of the mobile stations having a respective maintained communication link with the apparatus, and recites among other features:

"means for grouping at least two of the plurality of mobile stations as members of a private network group".

The Examiner has referred to column 10, lines 11 to 18 and column 10, line 63 to column 11, line 57 of the Wallentin *et al.* reference as partial disclosure for this claim feature. In particular, the Examiner alleges that this passage recites "the grouping of connections into desired classes". With respect, the Applicant does not contend that this passage does not disclose a "means for grouping"; however, this passage nor any other passage in the Wallentin *et al.* reference discloses "means for grouping at least two of the plurality of mobile stations as members of a private network group" (emphasis added). In particular, the above passage of the Wallentin *et al.* reference discloses grouping of connections, and this has nothing to do with determining whether mobile stations are members of a private network group. In particular, as discussed with reference to Figure 2 in column 4, lines 48 to 53 of the Wallentin *et al.* reference, a connection is made between a mobile station 30 and a URAN (UMTS Radio Access Network). The above passages referred to by the Examiner disclose how to assign a connection state for the connection. However, this has nothing to do with members of a private network group. In the Wallentin *et al.* reference the mobile stations 30 having associated connections in the same connection state are not members of a private network group.

Claim 1 also recites:

"means for determining if a first mobile station sending a data unit and a second mobile station scheduled to receive the data unit are both members of the private network group".

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The Examiner has referred to column 6, lines 34 to 59 of the Fraccaroli reference as disclosure for this claim feature and states that this passage recites "determining the position and hence the physical location of the user in order to determine whether the two mobile stations are both members of the private network group clearly anticipate the means for determining as now claimed". This passage in the Fraccaroli reference discloses how handsets use location methods other than triangulation, such as the adoption of a global positioning system (GPS) receiving device, to determine, or assist in the determination of location. With respect, this passage is silent on a "means for determining if a first mobile station sending a data unit and a second mobile station scheduled to receive the data unit are both members of a private network group. Instead, the passage refers only to the use of a GPS to determine, or assist in the determination of, location. Furthermore, in the Fraccaroli reference the determination of the location of a mobile station is performed prior to any communication link being established between the mobile station and another mobile station, and therefore, the above passage in the Fraccaroli reference can have nothing to do with "determining if a first mobile station sending a data unit and a second mobile station scheduled to receive the data unit are both members of a private network group" (emphasis added). Instead, a combination of the two references teaches establishing a communications link only after exchange of telephone numbers and then data is simply transmitted between the mobile terminals without any determination of whether the mobile terminals are part of a private network group.

Claim 1 also recites:

"means for enabling communication of the data unit from the first mobile station to the second mobile station through the respective maintained communication links of the first mobile station and the second mobile station only if they are both members of the private network group".

The Examiner has referred to column 9, line 50 to column 10, line 15 of the Fraccaroli reference as disclosure for this claim feature and states that this passage recites "constantly and automatically scanning for matching opportunities each time a user enter[s] a new location area whereby the user has the option to enable or disable matching so that in no case at the occurrence of a match, will the actual telephone number be exchanged automatically between two people

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without each of their permission clearly anticipate means for enabling communication only if they are both members of the network group". With respect, this passage refers to how matching profiles are treated and requested, how matching is enabled, and how telephone numbers are exchanged between people. However, there is no disclosure of any "means for enabling communication of the data unit ... through <u>respective maintained communication links</u> of the first mobile station and the second mobile station only if they are both members of the private network group" (emphasis added). In particular, as noted by the Examiner "the user has the option to <u>enable</u> or disable matching so that in <u>no case</u> at the occurrence of a match, will <u>the actual telephone number be exchanged automatically</u> between two people without each of their permission" (emphasis added). With respect, in the Fraccaroli reference <u>before</u> any communication links between two handsets can be established a telephone number has to be exchanged. Therefore, what is being disclosed is a method of exchanging telephone numbers and <u>not</u> "means for enabling communication of the data unit ... through respective <u>maintained</u> communication links <u>of a first mobile station and a second mobile station</u> (emphasis added).

Thus, the features of claim 1 are not all disclosed by the Wallentin *et al.* and Fraccaroli references, and requirement 1) for a *prima facie* case of obviousness cannot be satisfied.

Regarding requirement 2), since the features of claim 1 are not all taught by the cited references there can be no reasonable expectation of success, and this requirement is also not satisfied.

Regarding requirement 3), whereas the Wallentin *et al.* reference is directed to providing a dynamic adaptation of a connection state in a mobile communication system, the Fraccaroli reference provides a method of initiating contact between persons utilizing a wireless communication network on the basis of their physical location and similarity of information which they have stored in the network. These two references are directed to solving completely different problems, and the only relationship between the two is that they refer to a wireless communication network. Furthermore, the only apparent reason that the Wallentin *et al.* reference is being cited is because it discloses maintaining a connection. However, the combination of teachings from the Wallentin *et al.* and Fraccaroli references as proposed by the Examiner would require that mobile stations maintain respective communication links between

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each other, and that transmission of data between two mobile stations be enabled only when the two mobile stations are in close proximity with each other. With respect, this makes no sense as this would require a large number of communication links between all of the mobile stations of users waiting to be matched to another user to be maintained even if the mobile stations are far apart from each other. Clearly, this is an inefficient way of using system resources, and teaches away from the Wallentin *et al.* reference, which is directed to optimizing efficiency of the use of system resources.

As such, requirement 3) for a *prima facie* case of obviousness is also not satisfied.

Thus, none of the requirements for a *prima facie* case of obviousness are satisfied.

The Examiner is respectfully requested to reconsider and withdraw the 35 U.S.C. 103(a) rejection of claim 1.

Claim 8

Claim 8 depends on claim 1 and should be allowed for the same reasons as discussed above with reference to claim 1. The Examiner is respectfully requested to reconsider and withdraw the 35 U.S.C. 103(a) rejection of claim 8.

Claims 11, 12, 21, 22, 25, 26, 28, 30, 36, 39, 40, and 43

Claims 11, 12, 22, 28, 36, and 40 should be allowed for the same reasons as discussed above with reference to claim 1. Furthermore, each one of claims 21, 25, 26, 30, 39, and 43 depends on one of claims 12, 22, 28, 30, 36, and 40 and should be allowed for the same reasons.

The Examiner is respectfully requested to reconsider and withdraw the 35 U.S.C. 103(a) rejection of claims 11, 12, 21, 22, 25, 26, 28, 30, 36, 39, 40, and 43.

Claims 27 and 29

Each one of claims 27 and 29 depends on one of claims 22 and 28 and should be allowed for the same reasons as discussed above with reference to claims 22 and 28. Furthermore, the Examiner has not addressed the additional claim features recited in these claims, and Applicant

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submits that these additional features are not disclosed in any of the cited references.

In paragraph 4 of the Detailed Action, the Examiner has rejected claim 31 under 35 U.S.C. 103(a) as being unpatentable over the Wallentin *et al.* and Fraccaroli references in view of United States Patent No. 6,249,584 (Hämäläinen *et al.*).

Claim 31 depends on base claim 28 and should be allowed for the same reasons as discussed above with reference to base claim 28. In particular, the Wallentin *et al.* and Fraccaroli references fail to disclose all of the features of base claim 28, and Applicant submits that the Hämäläinen *et al.* reference also fails to disclose the claim features of base claim 28 that the Wallentin *et al.* and Fraccaroli references fail to disclose. As such, requirement 1) for a *prima facie* case of obviousness is not satisfied.

Furthermore, since the claim features of claim 31 are not all disclosed by the cited references there is no reason to believe that a combination of teachings from any of the Wallentin *et al.*, Fraccaroli, and Hämäläinen *et al.* references produces an expectation of a reasonable chance of success, and requirement 2) for a *prima facie* case of obviousness is not satisfied.

Finally, the Hämäläinen *et al.* reference discloses a method for indicating and ciphering of data transmission between a mobile communication network and a mobile station. With respect, this has nothing to do with the solution provided by the present invention nor does this have anything to do with the disclosures of the Wallentin *et al.* and Fraccaroli references. The Examiner is simply combining teachings from references that solve completely different problems from completely different fields and there is no suggestion or motivation to combine these references. As such, requirement 3) for a *prima facie* case of obviousness is not satisfied.

None of the requirements for a *prima facie* case of obviousness are satisfied.

The Examiner is respectfully requested to reconsider and withdraw the 35 U.S.C. 103(a) rejection of claim 31.

Applicant appreciates the Examiner's comments in paragraph 5 of the Detailed Action,
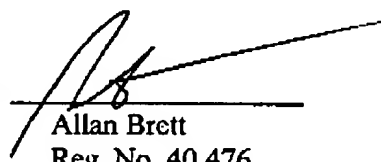
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which indicate that claims 2 to 7, 9 to 10, 13 to 20, 23 to 24, 32 to 35, 37 to 38, and 41 to 42 would be allowable if rewritten in independent form. However, given the above discussion in favour of the base claims Applicant elects to leave these claims unamended.

In view of the foregoing, early favorable consideration of this application is earnestly solicited.

Respectfully submitted,

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